

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
19 May 2005 (19.05.2005)

PCT

(10) International Publication Number
WO 2005/044294 A2

(51) International Patent Classification⁷: **A61K 38/00**

DE MENEZES, Daniel, E. [PT/US]; Chiron Corporation,
P.O. Box 8097, Emeryville, CA 94662-8097 (US).

(21) International Application Number:
PCT/US2004/036958

(74) Agents: **ALEXANDER, Lisa, E.** et al.; Chiron Corporation, Intellectual Property Department, P.O. Box 8097, Emeryville, CA 94662-8097 (US).

(22) International Filing Date:
4 November 2004 (04.11.2004)

(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/517,337 4 November 2003 (04.11.2003) US
60/525,579 26 November 2003 (26.11.2003) US
60/565,710 27 April 2004 (27.04.2004) US

(71) Applicant (*for all designated States except US*): **CHIRON CORPORATION** [US/US]; 4560 Horton Street, Emeryville, CA 94608-2916 (US).

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **LONG, Li** [CA/US]; Chiron Corporation, P.O. Box 8097, Emeryville, CA 94662-8097 (US). **LUQMAN, Mohammad** [US/US]; Chiron Corporation, P.O. Box 8097, Emeryville, CA 94662-8097 (US). **YABANNAVAR, Asha** [US/US]; Chiron Corporation, P.O. Box 8097, Emeryville, CA 94662-8097 (US). **ZAROR, Isabel** [US/US]; Chiron Corporation, P.O. Box 8097, Emeryville, CA 94662-8097 (US). **HURST, Deborah** [US/US]; Chiron Corporation, P.O. Box 8097, Emeryville, CA 94662-8097 (US). **LOPES**

Published:

— *without international search report and to be republished upon receipt of that report*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD OF THERAPY FOR CANCERS EXPRESSING THE CD40 ANTIGEN

(57) Abstract: Methods of treating a subject for a cancer comprising neoplastic cells expressing the CD40 cell surface antigen are provided. The methods comprise combination therapy with interleukin-2 (IL-2) or biologically active variant thereof and at least one antagonist anti-CD40 antibody or antigen-binding fragment thereof. In some embodiments, these two therapeutic agents are concurrently administered as two separate pharmaceutical compositions, one containing IL-2 or biologically active variant thereof, which is administered according to a constant IL-2 dosing regimen or a two-level IL-2 dosing regimen, the other containing the antagonist anti-CD40 antibody or suitable antigen binding fragment thereof, which is administered according to a weekly dosing regimen, or alternatively is dosed once every two, three, or four weeks. Administering of these two agents together potentiates their effectiveness in promoting a positive therapeutic response. The methods find use in treating CD40-expressing cancers, including B-cell related cancers and solid tumors.